ABSTRACT OF THE DISCLOSURE

A signal modification technique facilitates compact voice coding by employing a continuous, rather than piece-wise continuous, time warp contour to modify an original residual signal to match an idealized contour, avoiding edge effects caused by prior art techniques. Warping is executed using a continuous warp contour lacking spatial discontinuities which does not invert or overly distend the positions of adjacent end points in adjacent frames. The linear shift implemented by the warp contour is derived via quadratic approximation or other method, to reduce the complexity of coding to allow for practical and economical implementation. In particular, the algorithm for determining the warp contour uses only a subset of possible contours contained within a sub-range of the range of possible contours. The relative correlation strengths from these contours are modeled as points on a polynomial trace and the optimum warp contour is calculated by maximizing the modeling function.